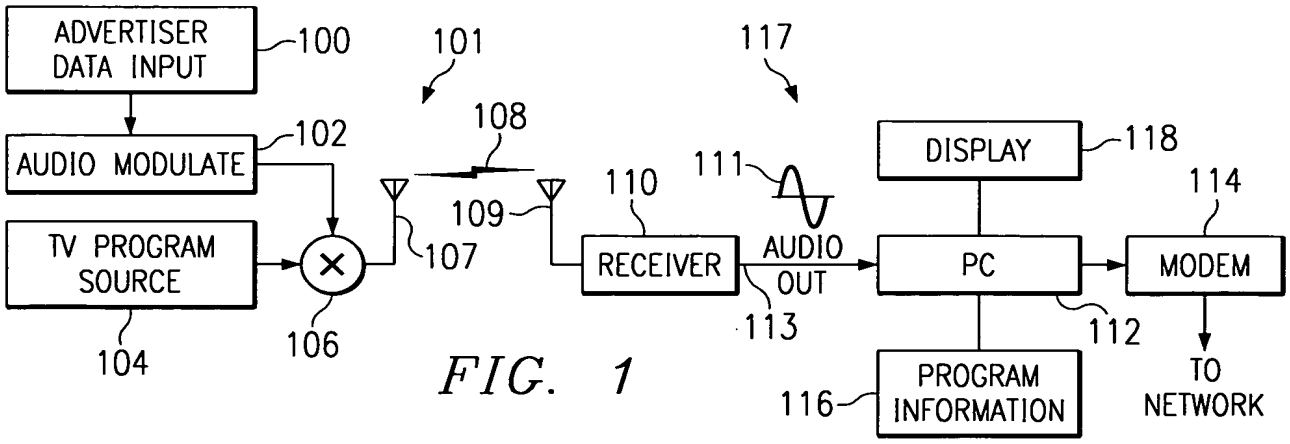


FIG. 1

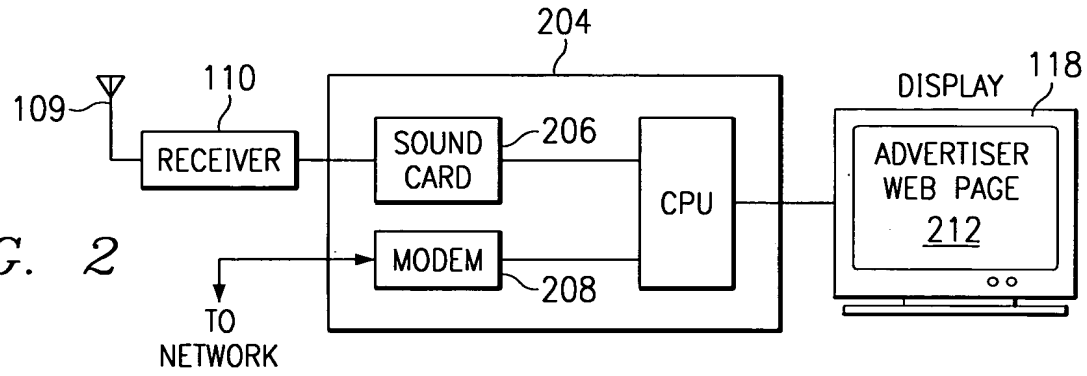


FIG. 2

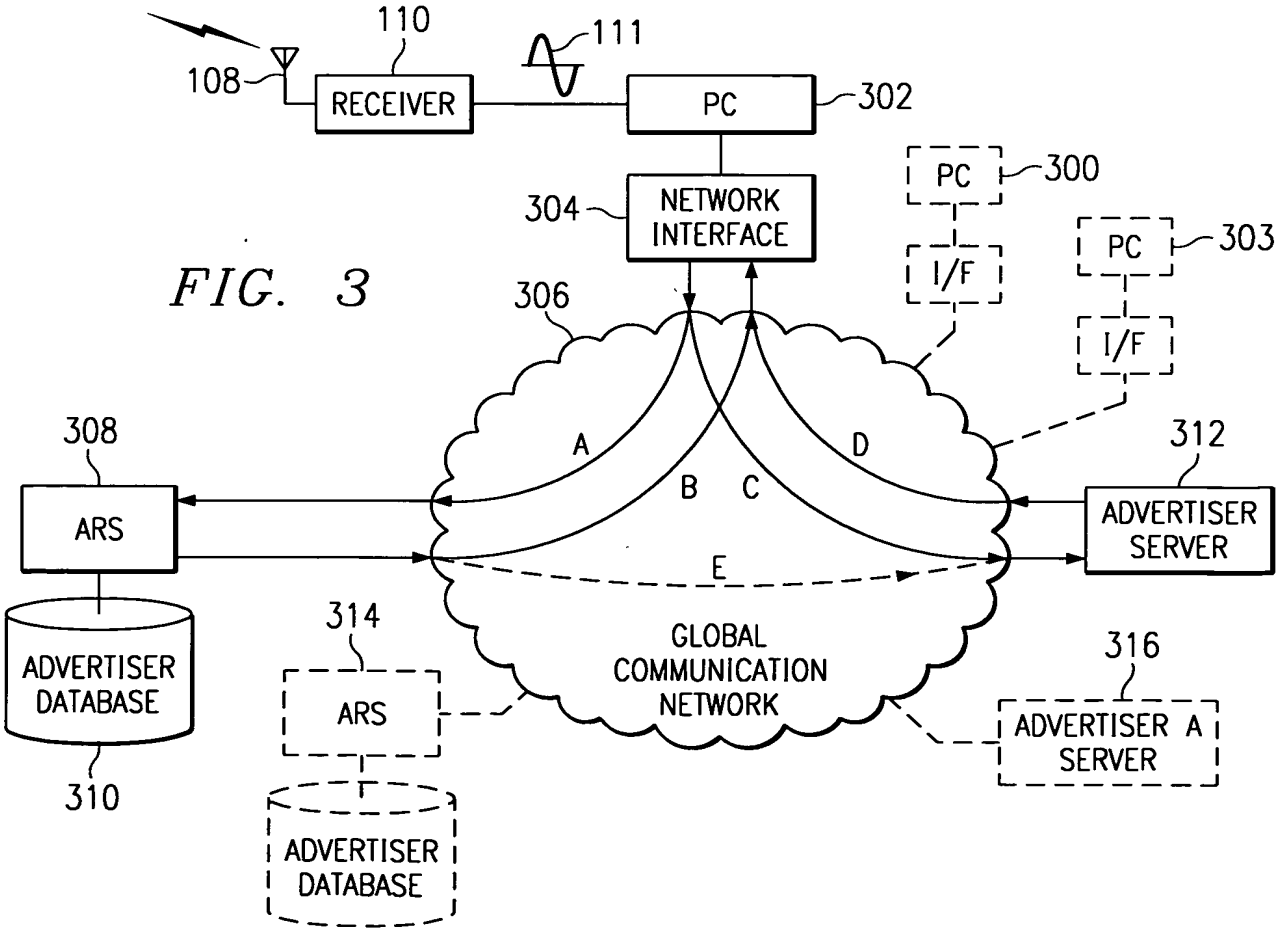


FIG. 3

PATH A: SOURCE TO ARS

FIG. 4a

PATH B: ARS TO SOURCE

FIG. 4b

PATH C: SOURCE TO ADVERTISER

FIG. 4c

PATH D: ADVERTISER TO SOURCE

FIG. 4d

PATH E: ARS TO ADVERTISER (OPTIONAL)

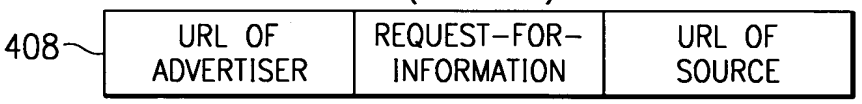


FIG. 4e

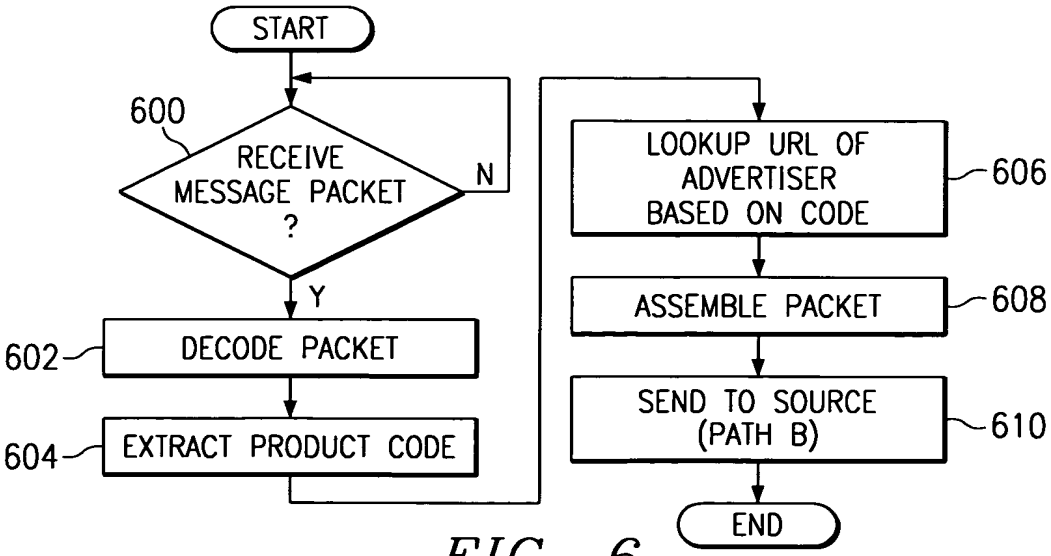


FIG. 6

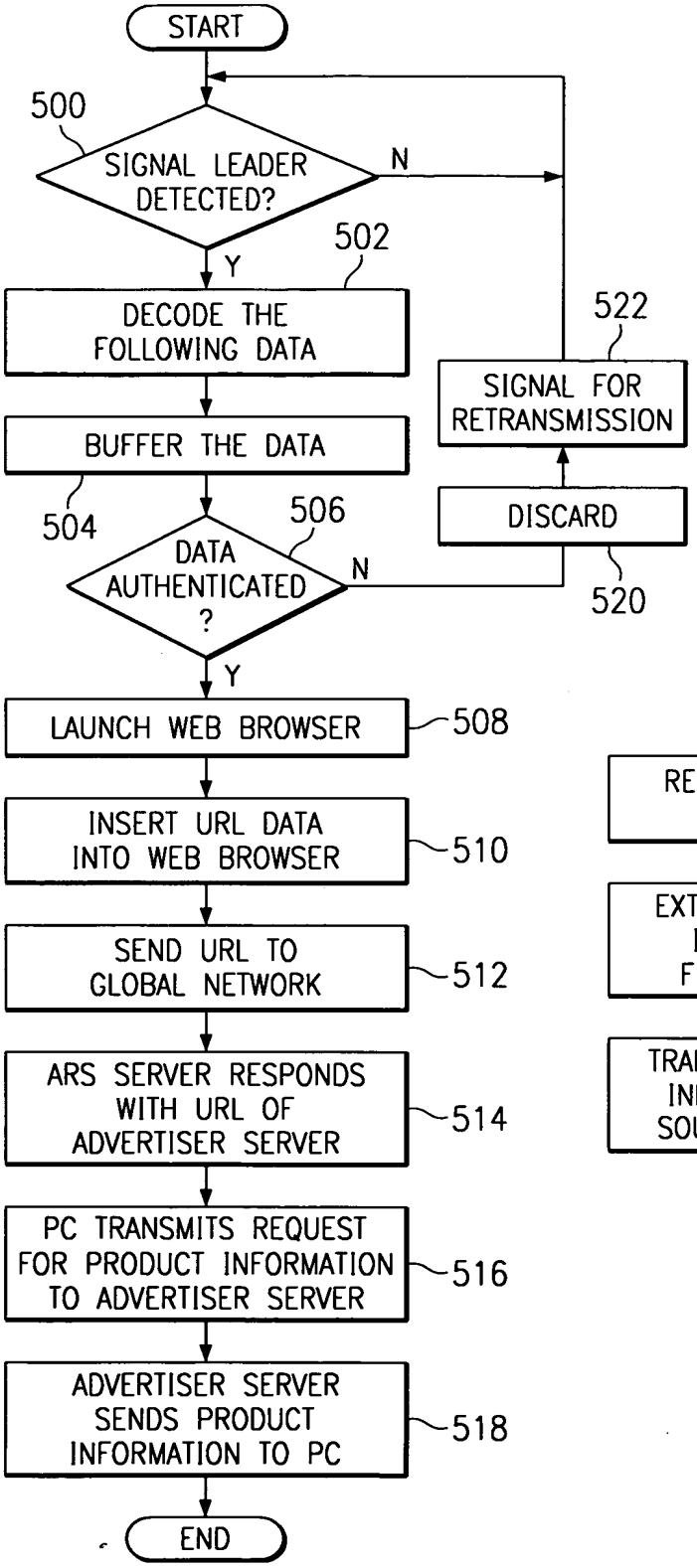

START
500
SIGNAL LEADER DETECTED?
N
Y
502
DECODE THE FOLLOWING DATA
BUFFER THE DATA
504
506
DATA AUTHENTICATED ?
N
Y
522
SIGNAL FOR RETRANSMISSION
DISCARD
520
LAUNCH WEB BROWSER
508
INSERT URL DATA INTO WEB BROWSER
510
SEND URL TO GLOBAL NETWORK
512
ARS SERVER RESPONDS WITH URL OF ADVERTISER SERVER
514
PC TRANSMITS REQUEST FOR PRODUCT INFORMATION TO ADVERTISER SERVER
516
ADVERTISER SERVER SENDS PRODUCT INFORMATION TO PC
518
END

FIG. 5

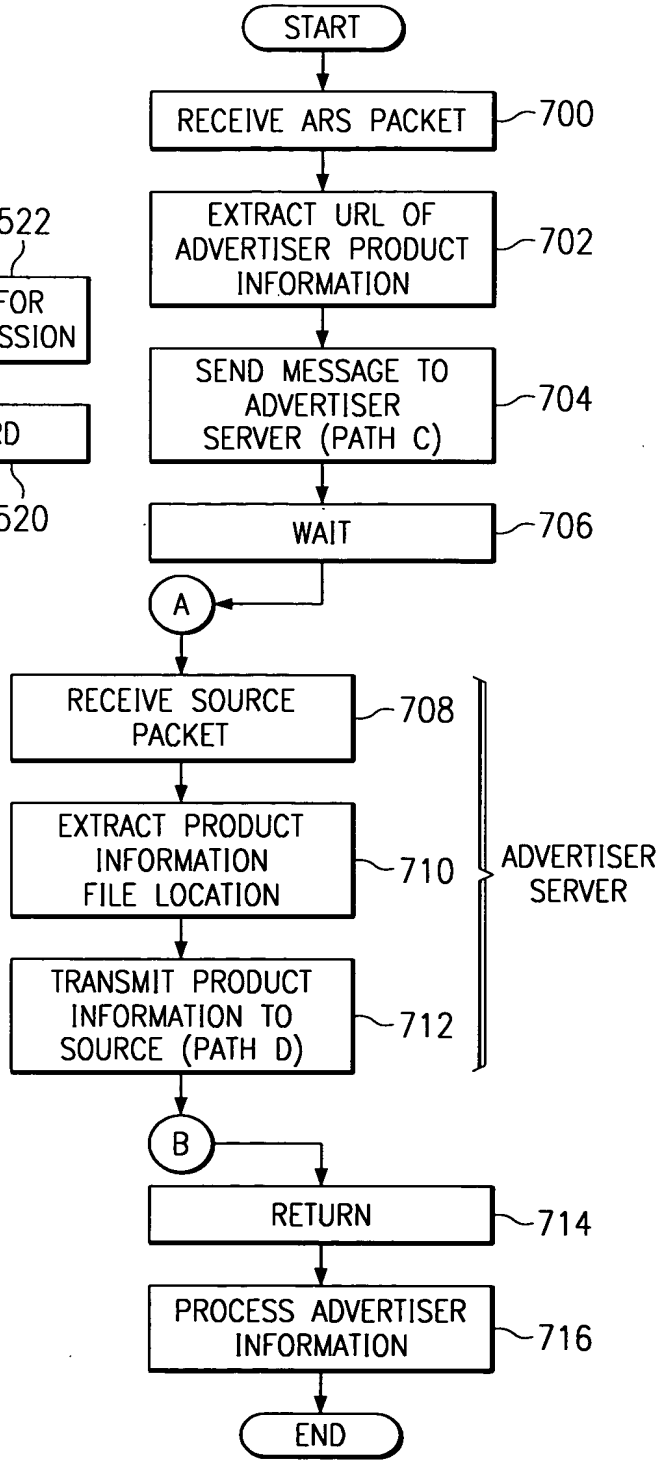

START
RECEIVE ARS PACKET
700
EXTRACT URL OF ADVERTISER PRODUCT INFORMATION
702
SEND MESSAGE TO ADVERTISER SERVER (PATH C)
704
WAIT
706
A
RECEIVE SOURCE PACKET
708
EXTRACT PRODUCT INFORMATION FILE LOCATION
710
TRANSMIT PRODUCT INFORMATION TO SOURCE (PATH D)
712
ADVERTISER SERVER
B
RETURN
714
PROCESS ADVERTISER INFORMATION
716
END

FIG. 7

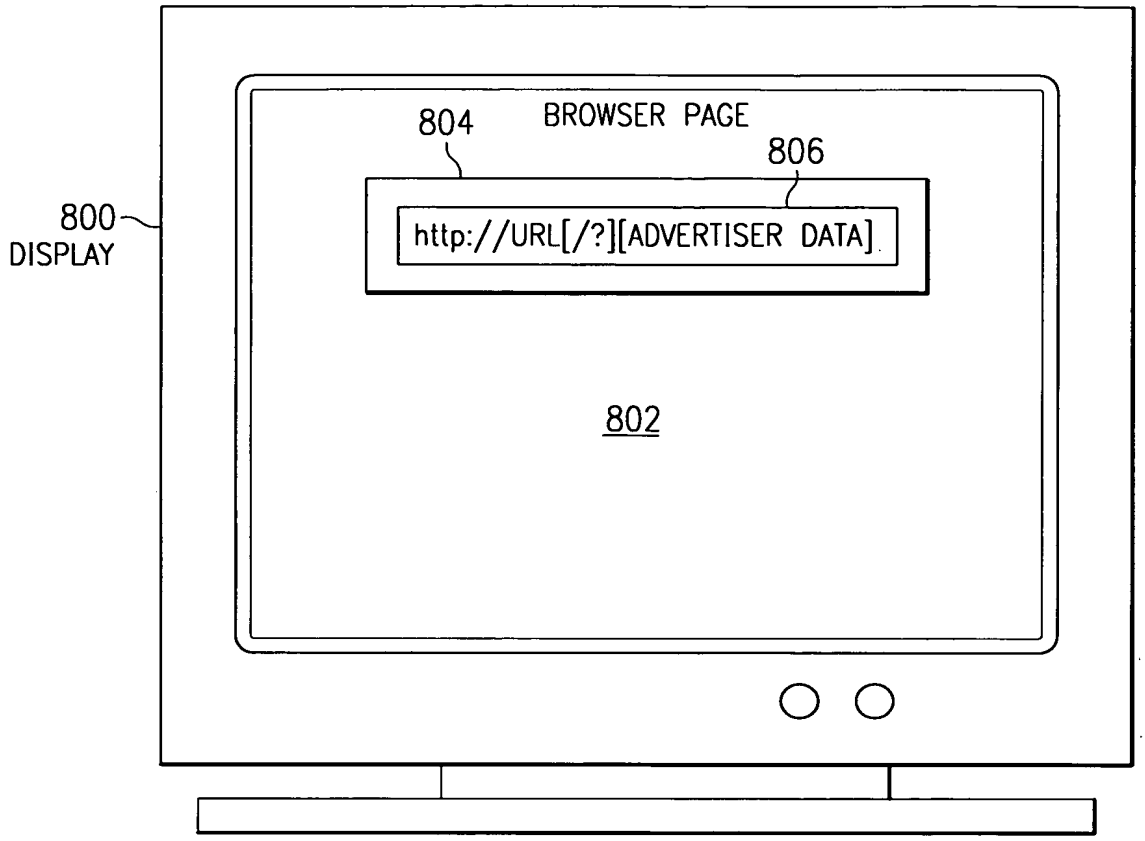
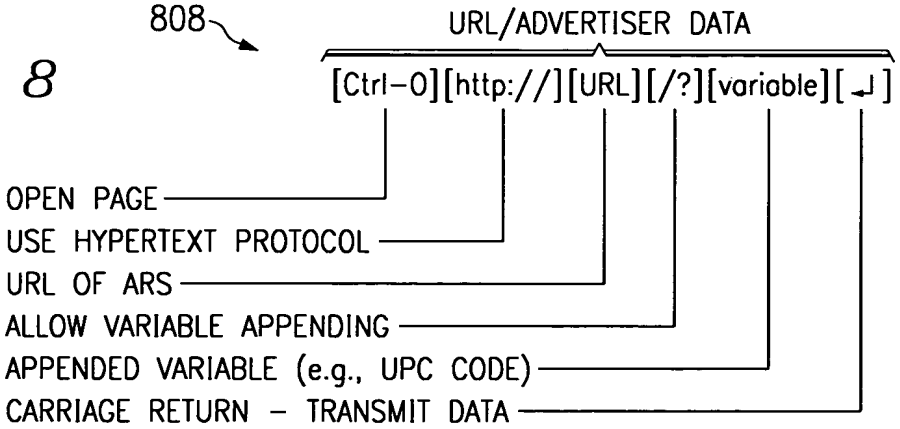

800
DISPLAY
804
BROWSER PAGE
806
http://URL[/?][ADVERTISER DATA]
802

FIG. 8


808
URL/ADVERTISER DATA
[Ctrl-O][http://][URL][/?][variable][↵]
OPEN PAGE
USE HYPERTEXT PROTOCOL
URL OF ARS
ALLOW VARIABLE APPENDING
APPENDED VARIABLE (e.g., UPC CODE)
CARRIAGE RETURN - TRANSMIT DATA

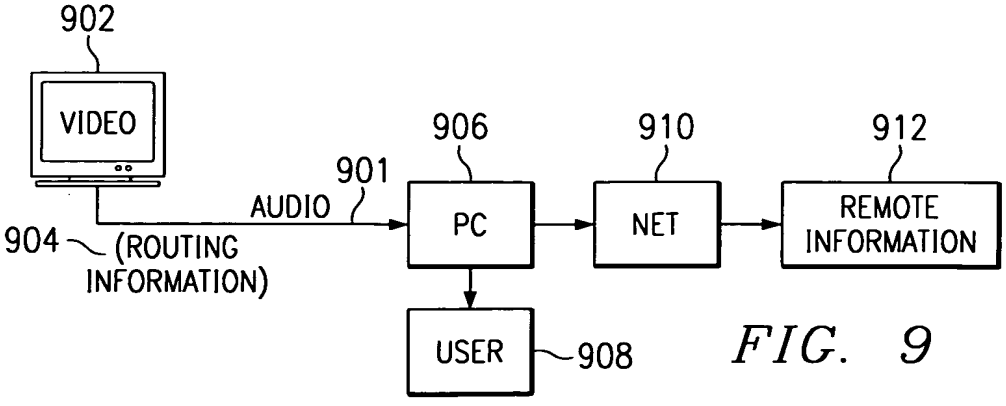

902
VIDEO
906
910
912
901
AUDIO
PC
NET
REMOTE INFORMATION
904
(ROUTING INFORMATION)
USER
908

FIG. 9

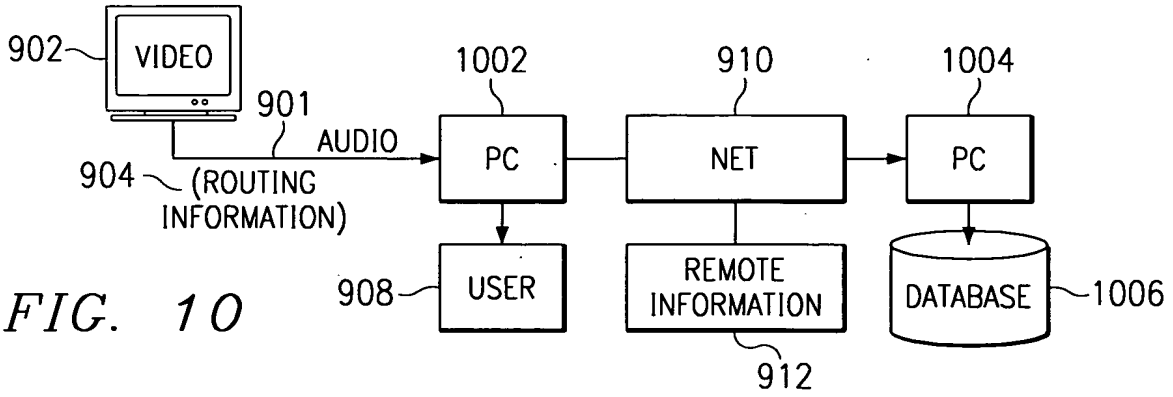


FIG. 10

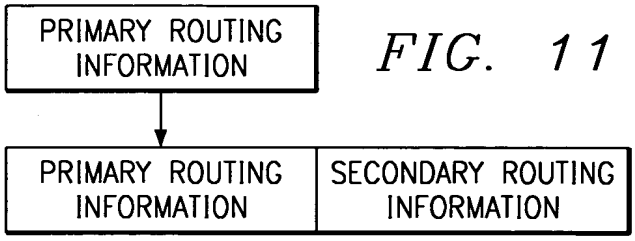


FIG. 11

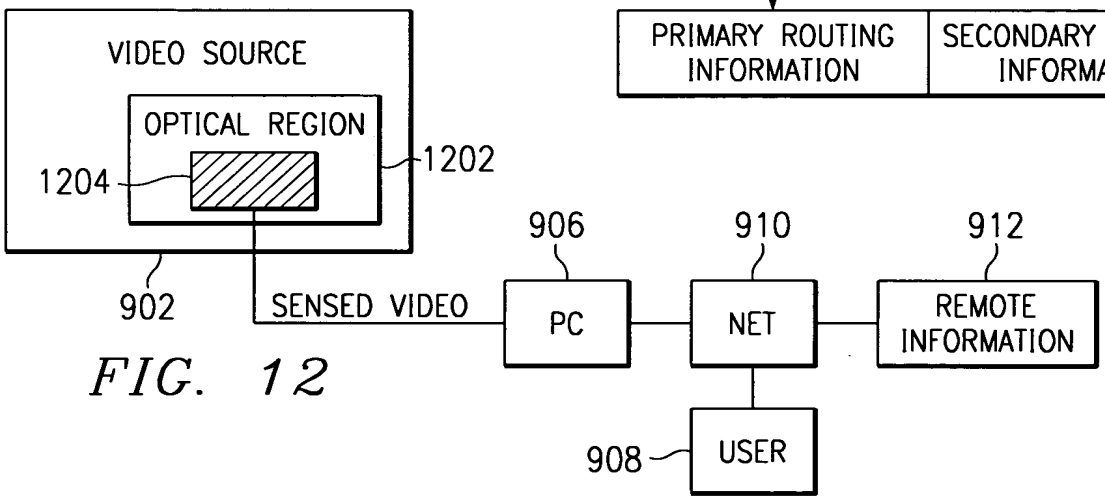


FIG. 12

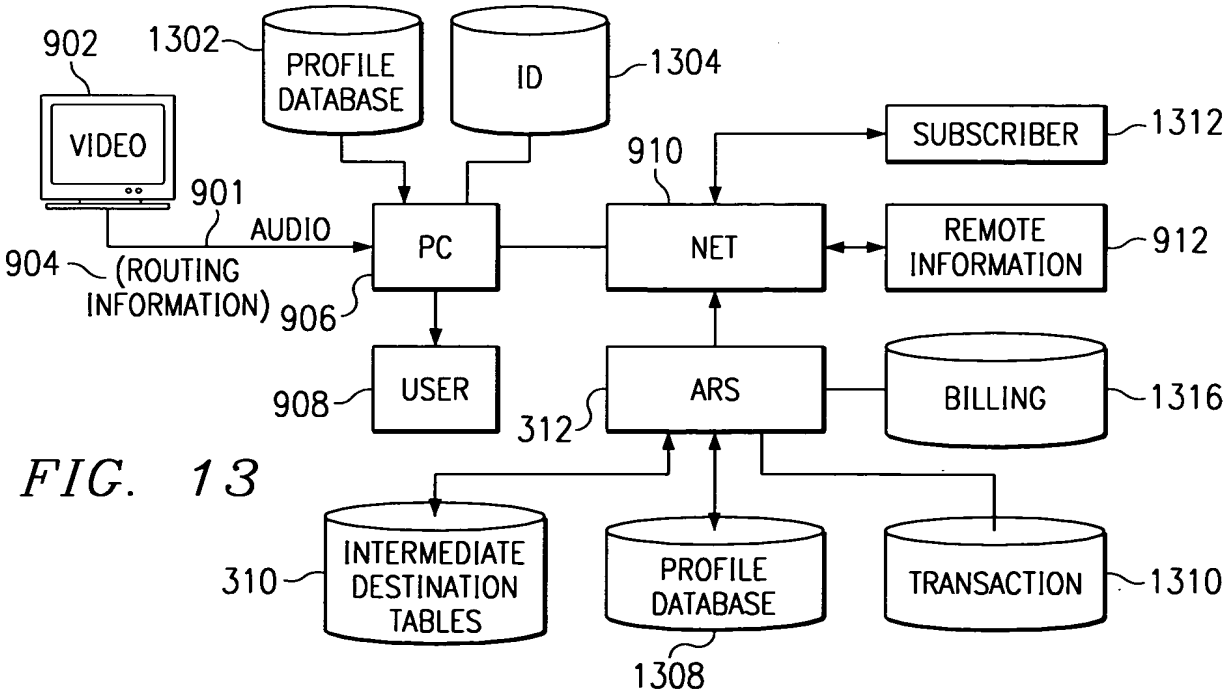


FIG. 13

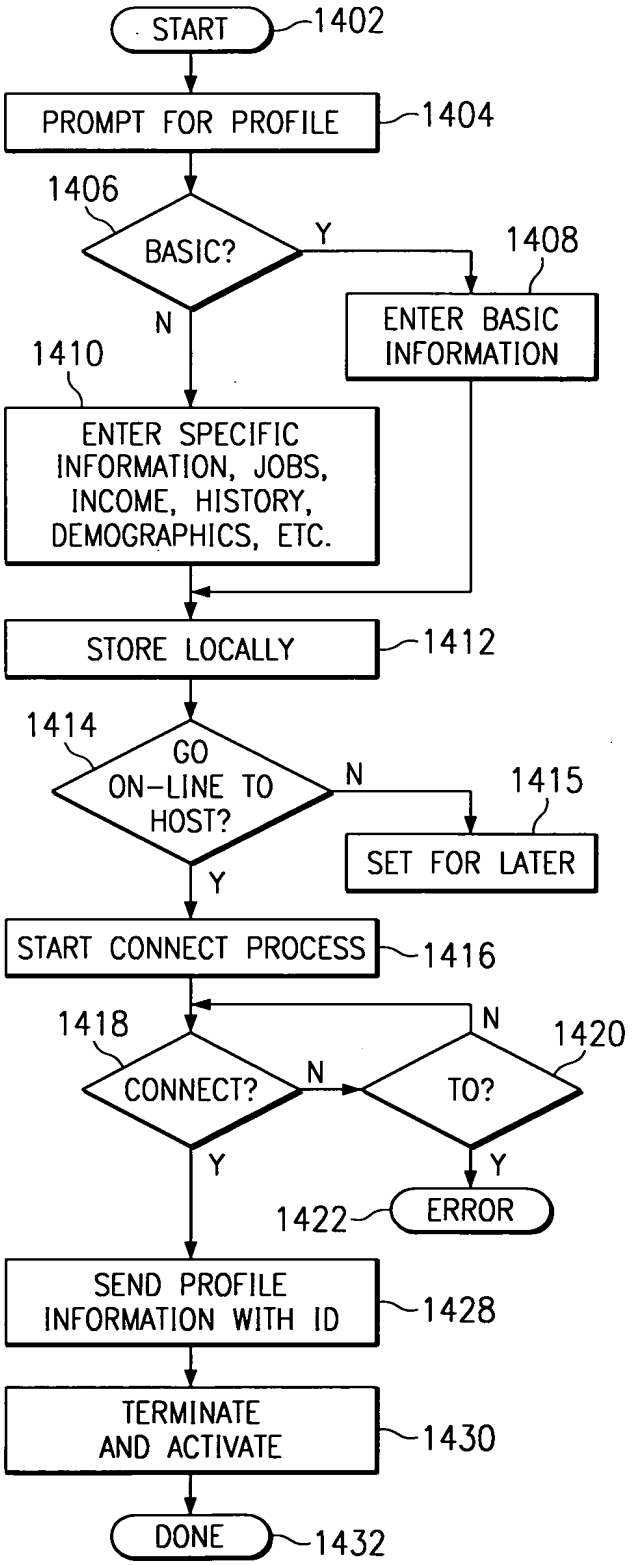

START
1402
PROMPT FOR PROFILE
1404
1406
BASIC?
Y
1408
ENTER BASIC INFORMATION
N
1410
ENTER SPECIFIC INFORMATION, JOBS, INCOME, HISTORY, DEMOGRAPHICS, ETC.
STORE LOCALLY
1412
1414
GO ON-LINE TO HOST?
N
1415
SET FOR LATER
Y
START CONNECT PROCESS
1416
1418
CONNECT?
N
TO?
1420
N
Y
Y
1422
ERROR
SEND PROFILE INFORMATION WITH ID
1428
TERMINATE AND ACTIVATE
1430
DONE
1432

FIG. 14

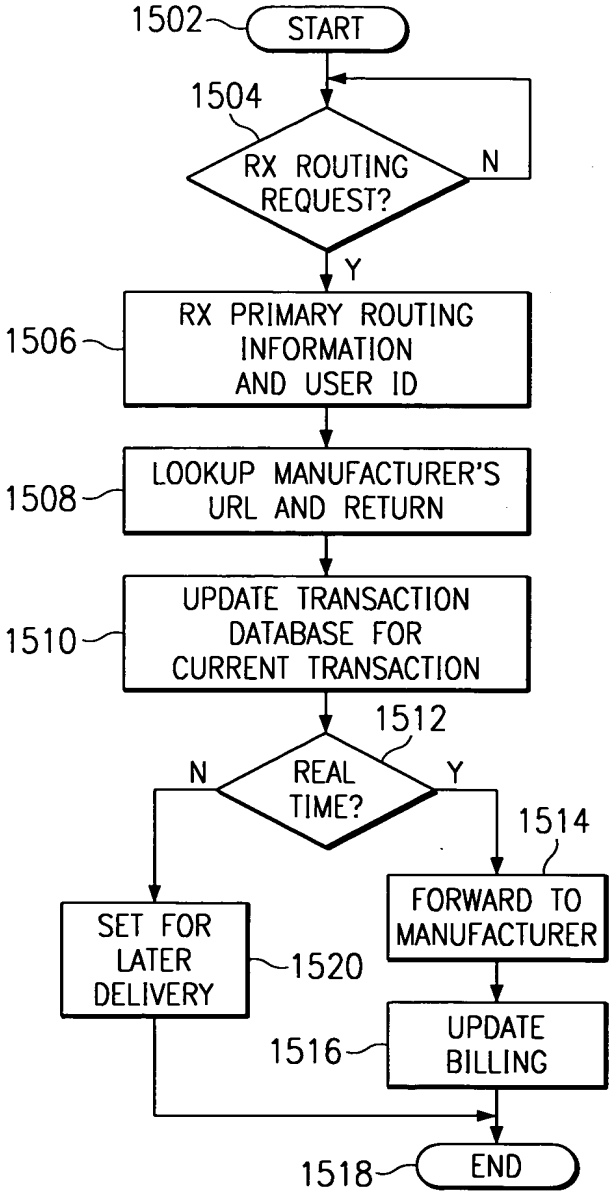

1502
START
1504
RX ROUTING REQUEST?
N
Y
1506
RX PRIMARY ROUTING INFORMATION AND USER ID
1508
LOOKUP MANUFACTURER'S URL AND RETURN
1510
UPDATE TRANSACTION DATABASE FOR CURRENT TRANSACTION
1512
N
REAL TIME?
Y
1514
FORWARD TO MANUFACTURER
SET FOR LATER DELIVERY
1520
1516
UPDATE BILLING
1518
END

FIG. 15

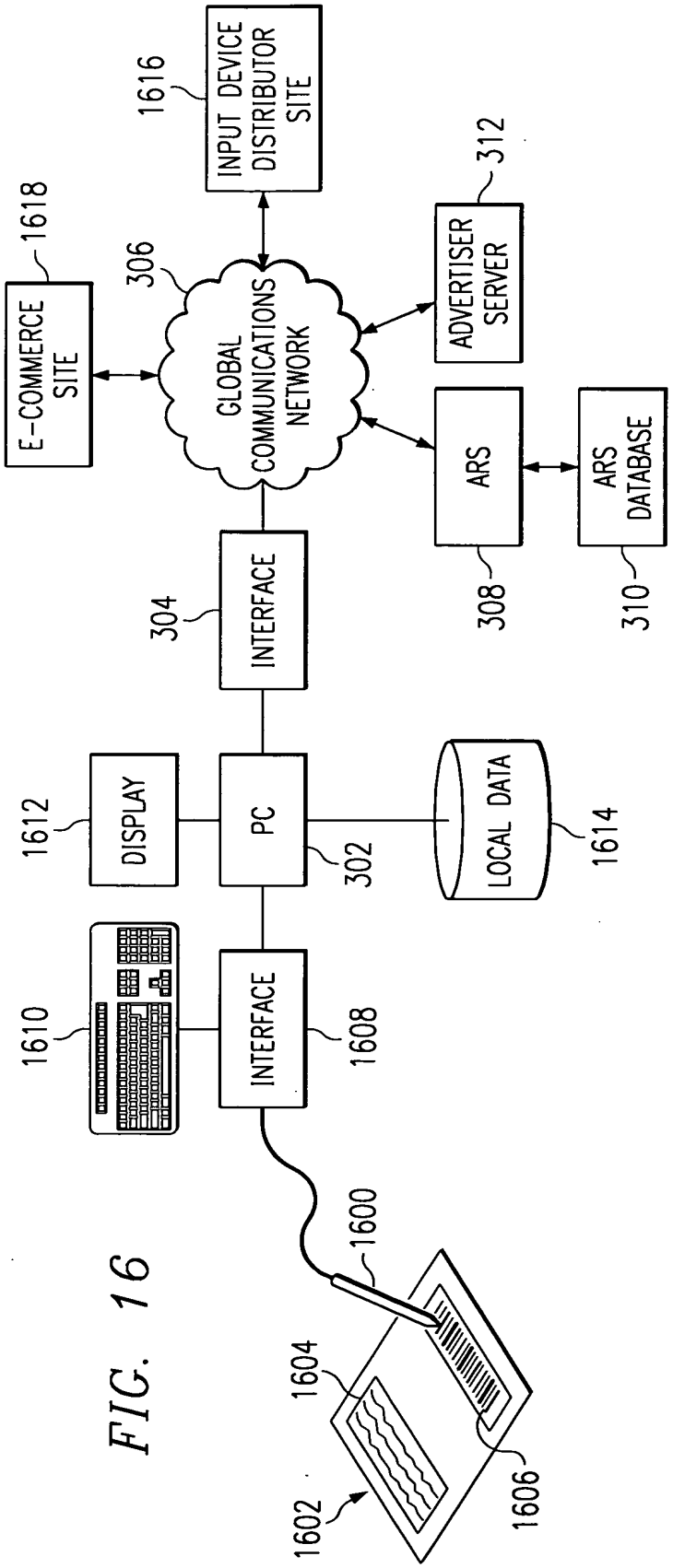


FIG. 16

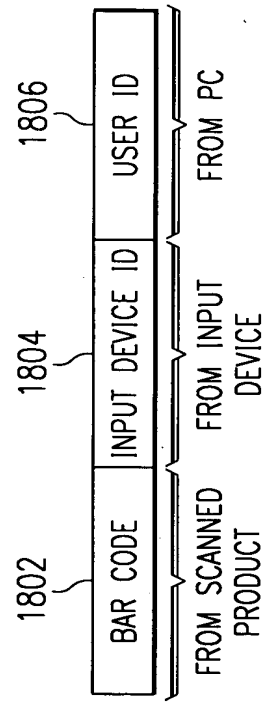


FIG. 18

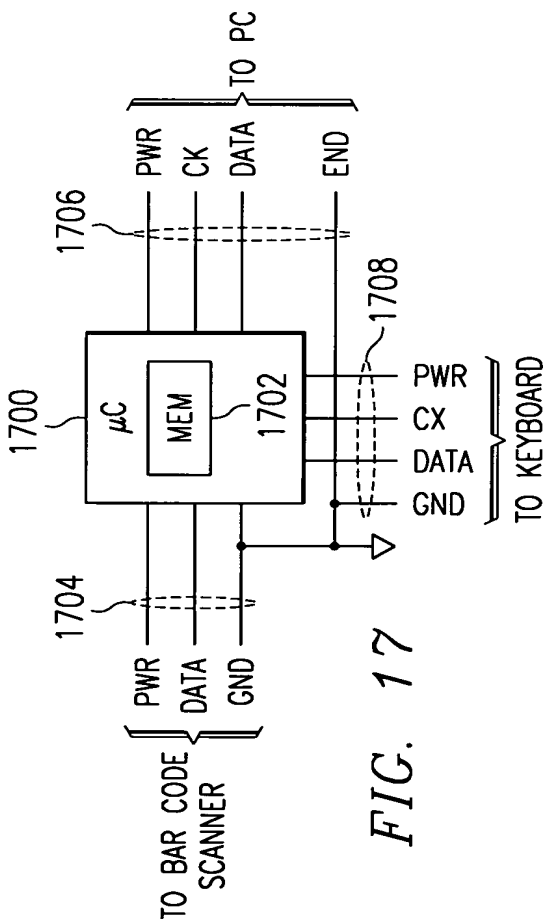


FIG. 17

FIG. 19

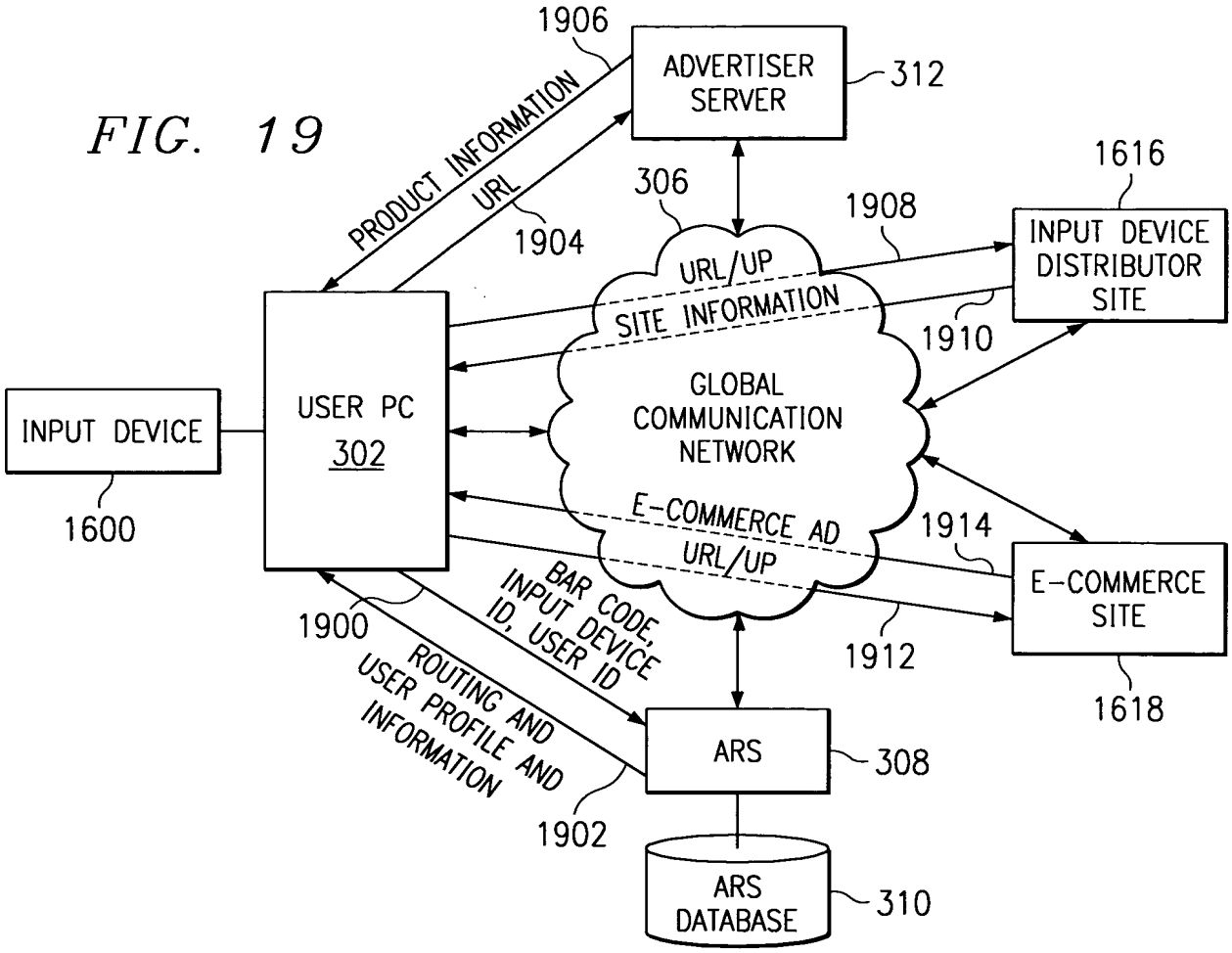

1906
ADVERTISER SERVER
312
PRODUCT INFORMATION
URL
1904
306
1908
1616
INPUT DEVICE DISTRIBUTOR SITE
URL/UP
SITE INFORMATION
1910
GLOBAL COMMUNICATION NETWORK
INPUT DEVICE
1600
USER PC
302
E-COMMERCE AD
URL/UP
1914
E-COMMERCE SITE
1618
1900
BAR CODE, INPUT DEVICE ID, USER ID
1912
ROUTING AND USER PROFILE AND INFORMATION
ARS
308
1902
ARS DATABASE
310

FIG. 20

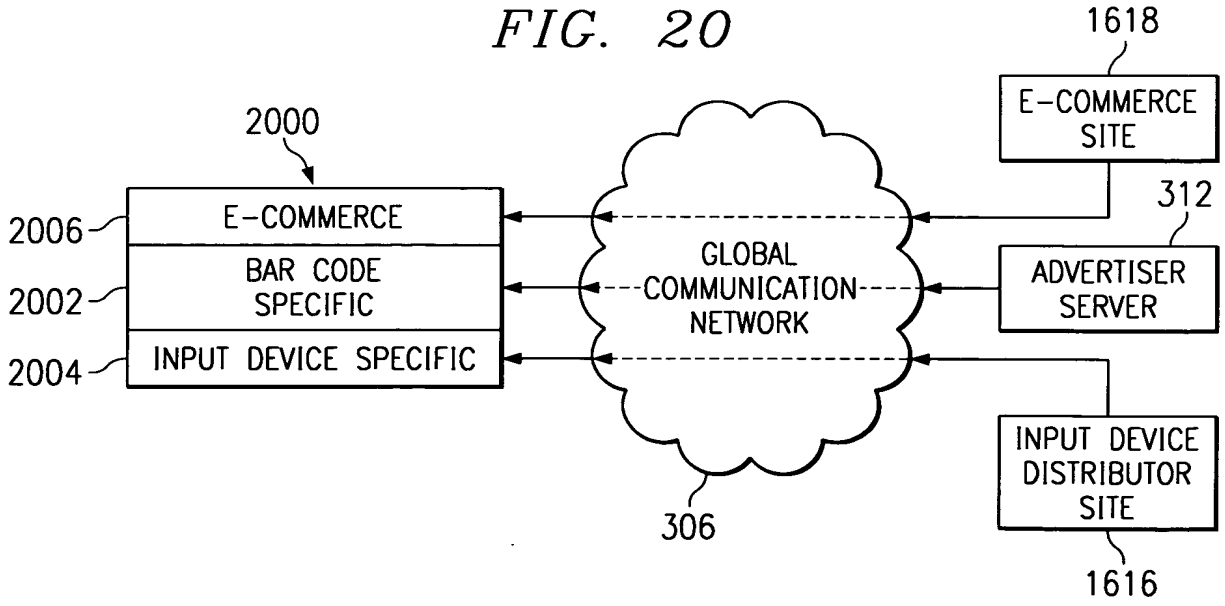

1618
E-COMMERCE SITE
2000
312
2006
E-COMMERCE
2002
BAR CODE SPECIFIC
GLOBAL COMMUNICATION NETWORK
ADVERTISER SERVER
2004
INPUT DEVICE SPECIFIC
INPUT DEVICE DISTRIBUTOR SITE
306
1616

FIG. 21

ARS DATABASE
2100

2102		2104		2106	2108	
PRODUCT		INPUT DEVICE		USER	E-COMMERCE	
BAR CODE	ROUTE	ID	DISTRIBUTOR	PROFILE	BAR CODE	INFORMATION

FIG. 22

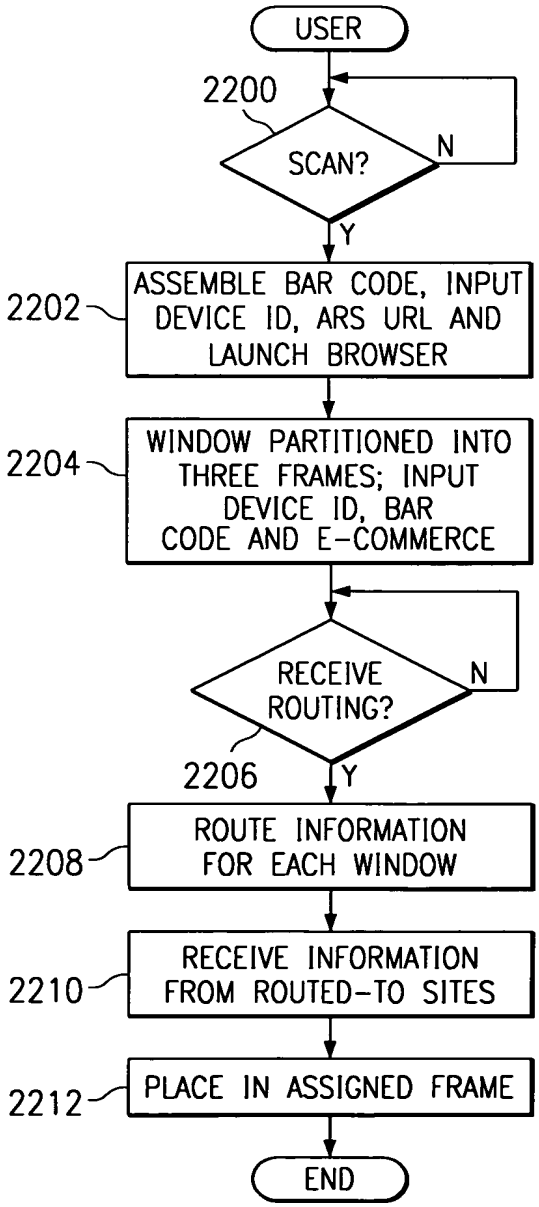


FIG. 23

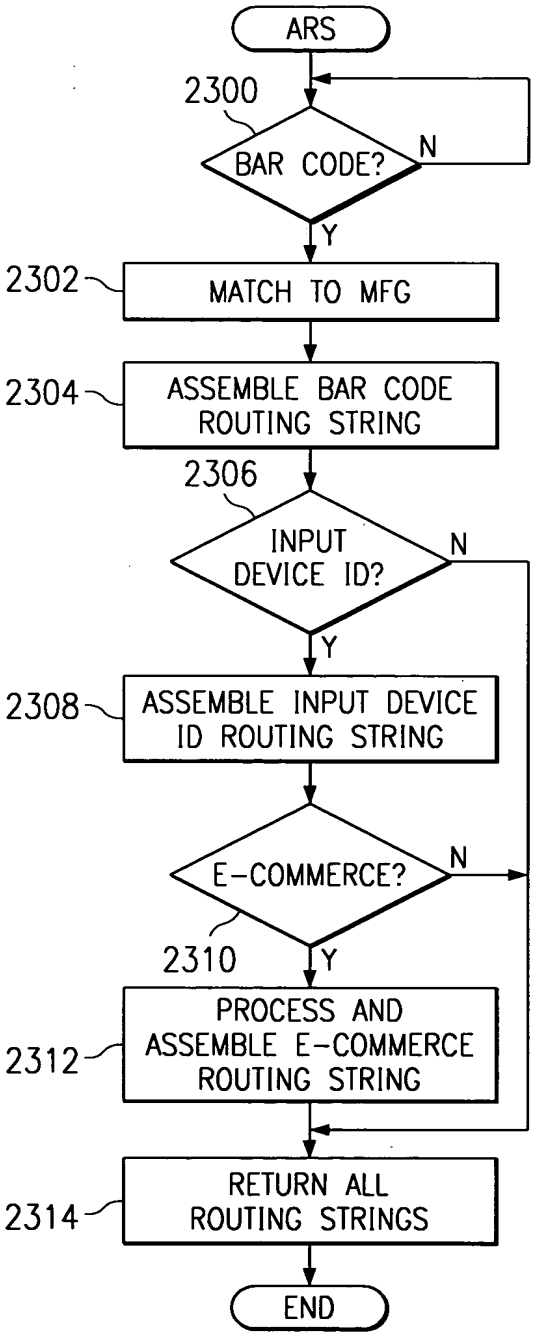
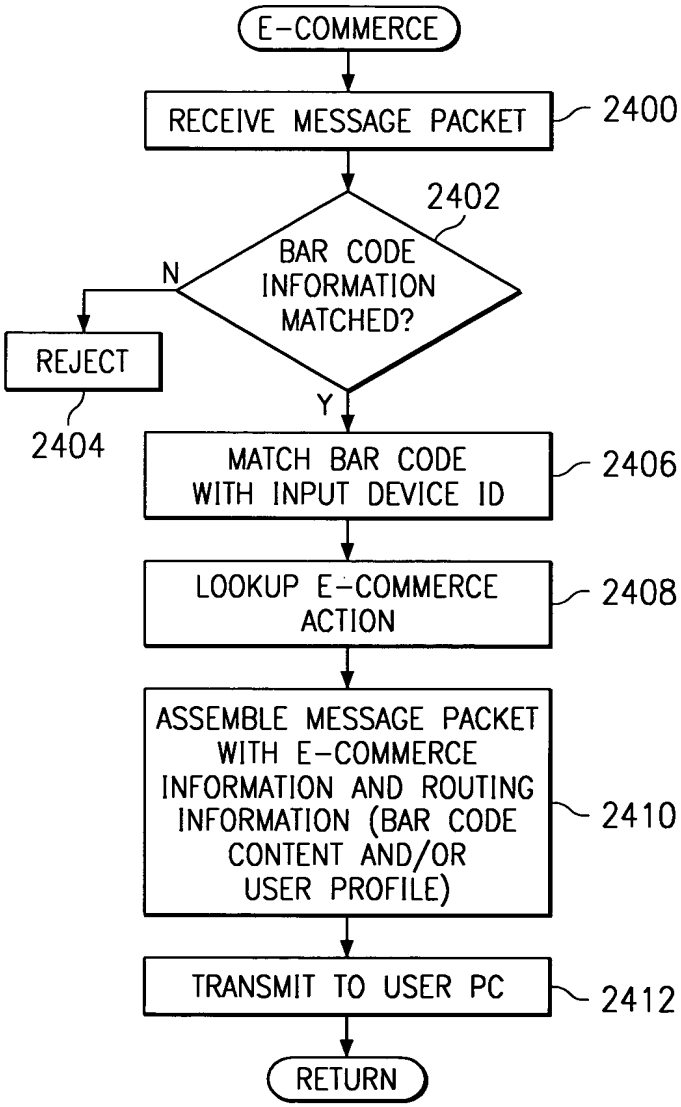

ARS
2300
BAR CODE?
N
Y
2302
MATCH TO MFG
2304
ASSEMBLE BAR CODE ROUTING STRING
2306
INPUT DEVICE ID?
N
Y
2308
ASSEMBLE INPUT DEVICE ID ROUTING STRING
E-COMMERCE?
N
2310
Y
2312
PROCESS AND ASSEMBLE E-COMMERCE ROUTING STRING
2314
RETURN ALL ROUTING STRINGS
END

FIG. 24


E-COMMERCE
RECEIVE MESSAGE PACKET
2400
2402
BAR CODE INFORMATION MATCHED?
N
REJECT
2404
Y
MATCH BAR CODE WITH INPUT DEVICE ID
2406
LOOKUP E-COMMERCE ACTION
2408
ASSEMBLE MESSAGE PACKET WITH E-COMMERCE INFORMATION AND ROUTING INFORMATION (BAR CODE CONTENT AND/OR USER PROFILE)
2410
TRANSMIT TO USER PC
2412
RETURN

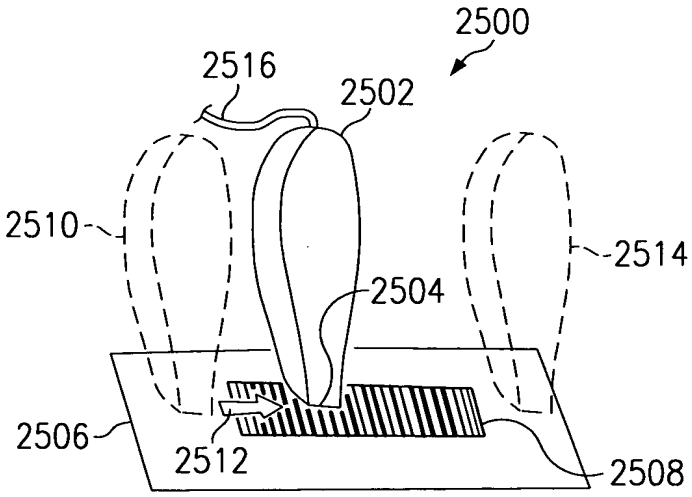


FIG. 25

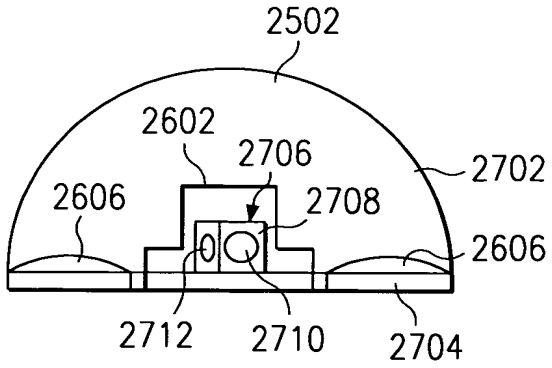


FIG. 27

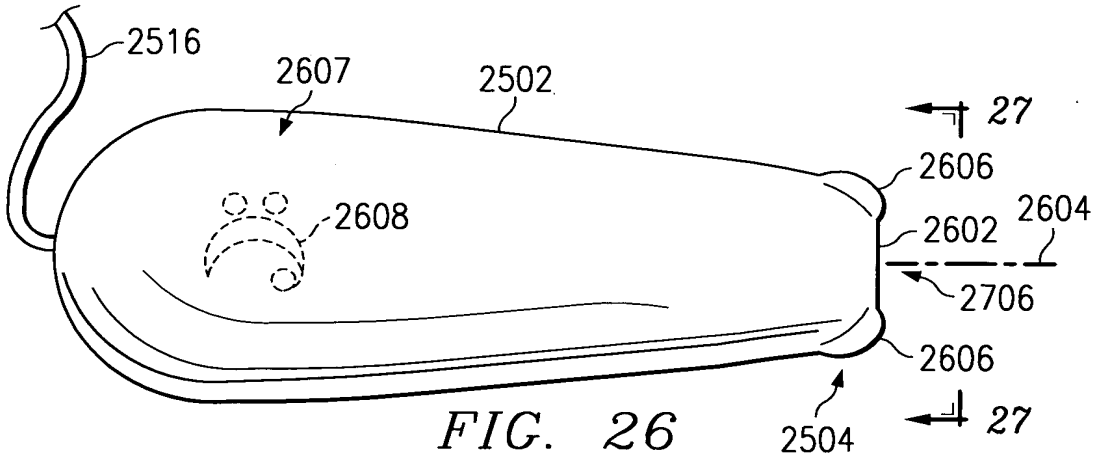


FIG. 26

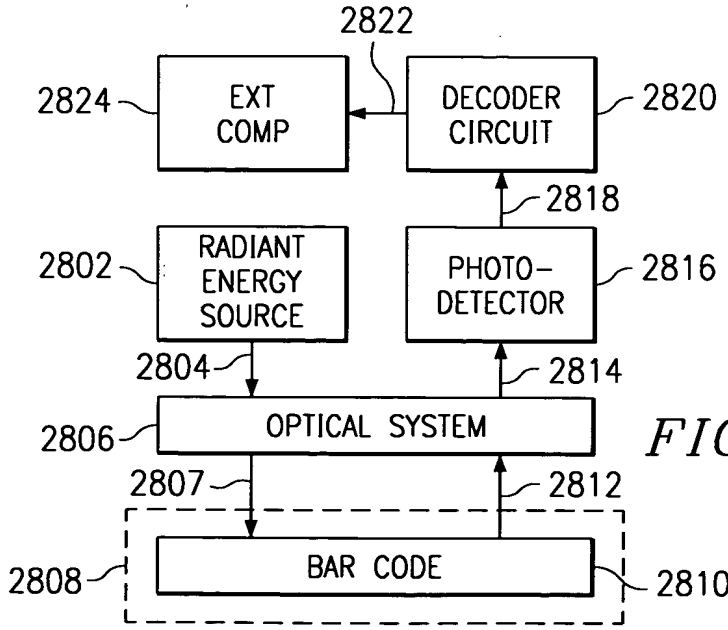


FIG. 28

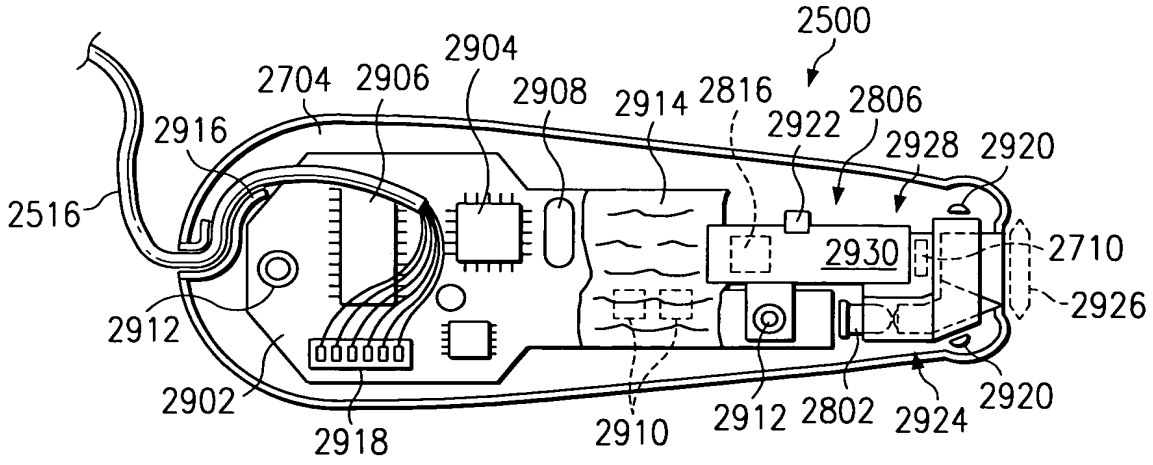


FIG. 29

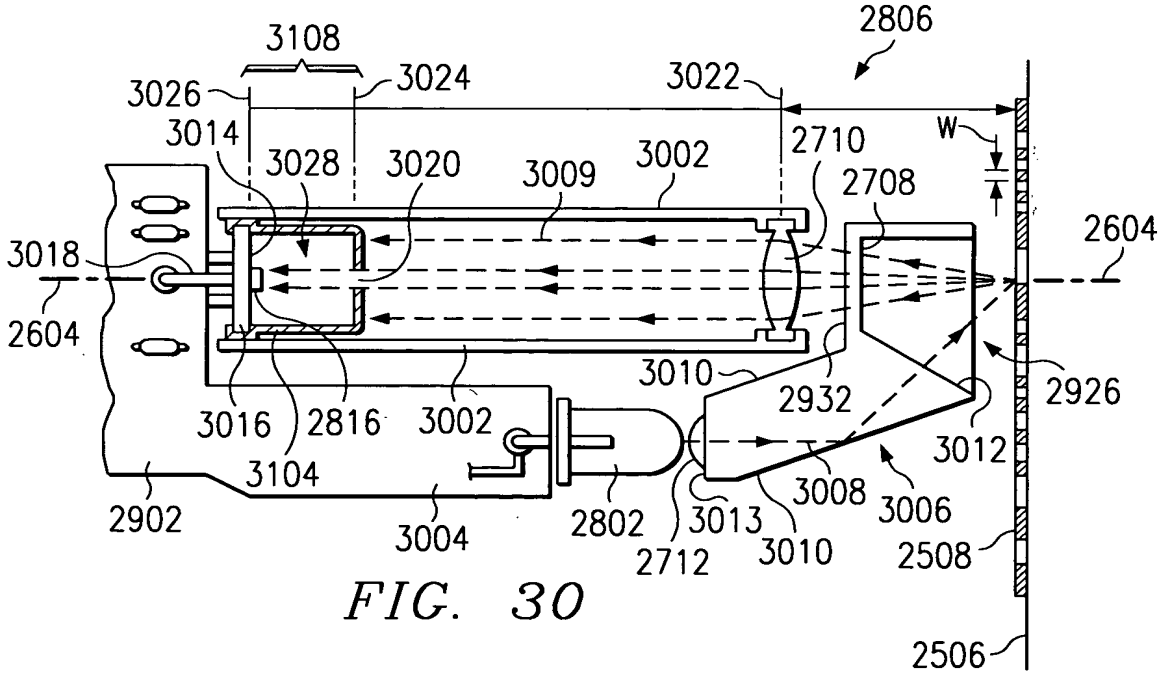


FIG. 30

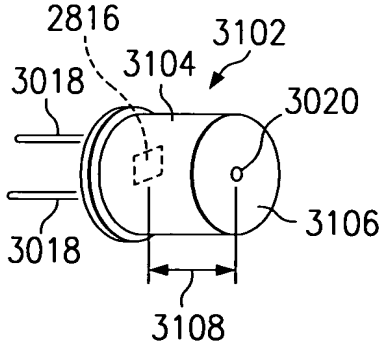


FIG. 31

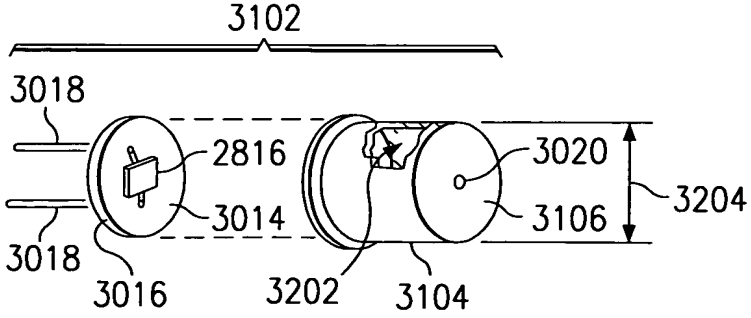


FIG. 32

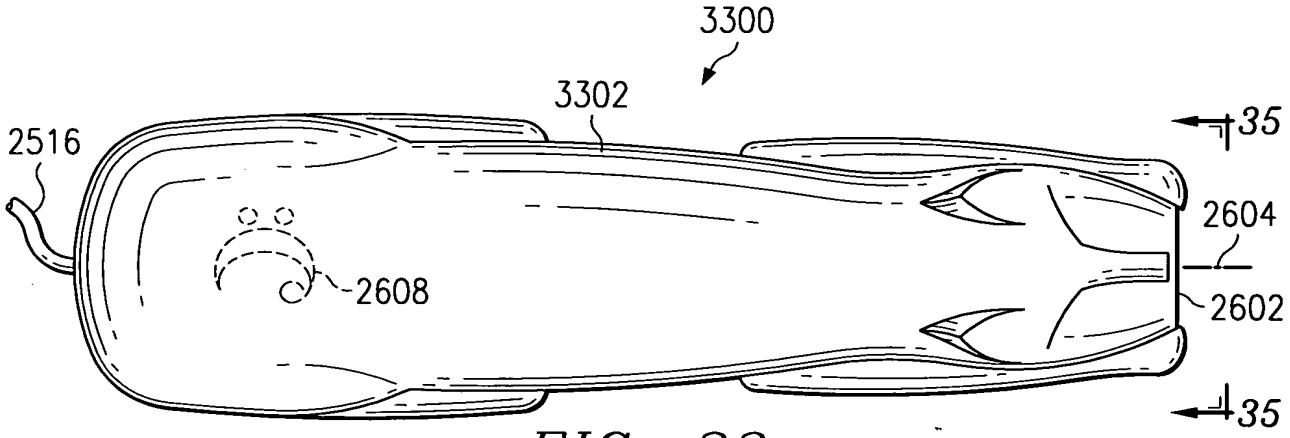


FIG. 33

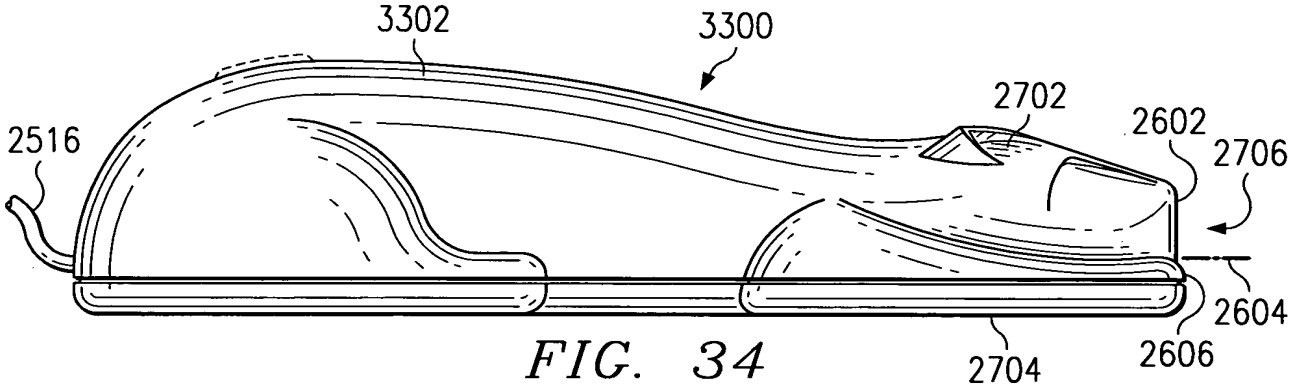


FIG. 34

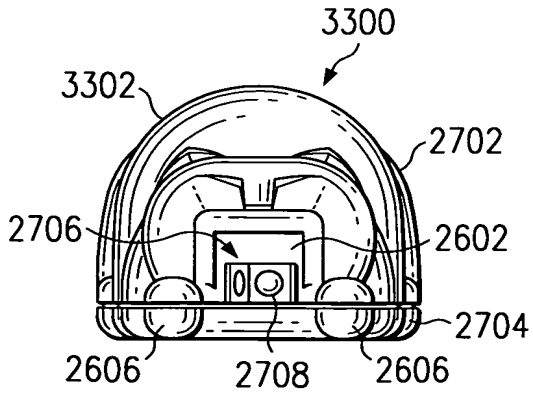


FIG. 35

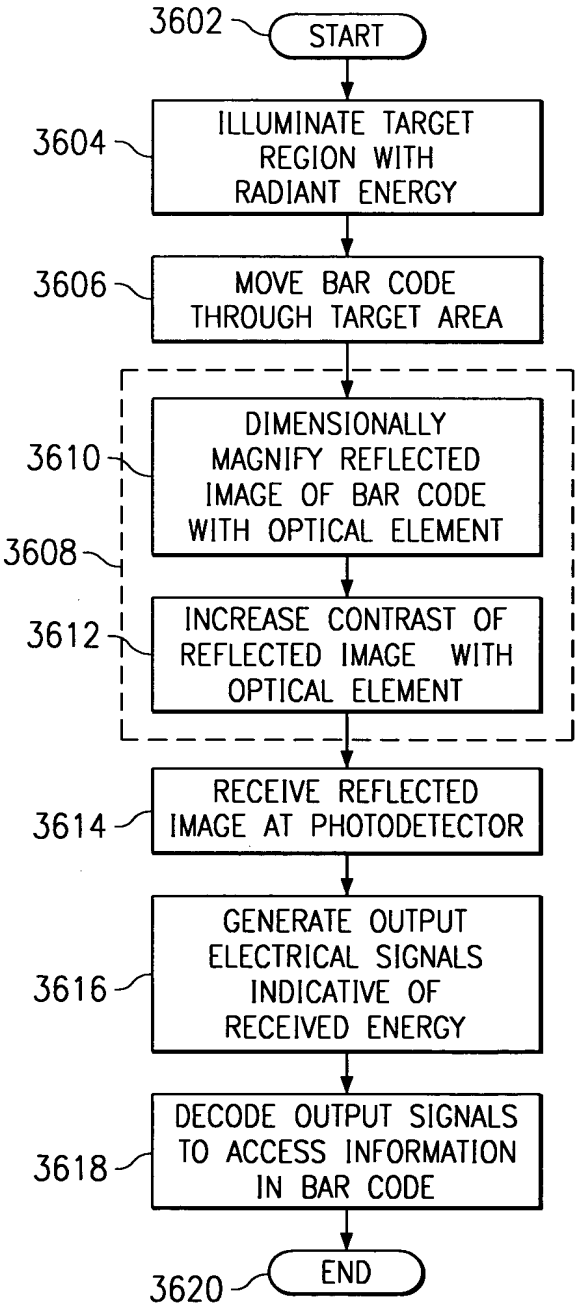

3602
START
3604
ILLUMINATE TARGET REGION WITH RADIANT ENERGY
3606
MOVE BAR CODE THROUGH TARGET AREA
3610
DIMENSIONALLY MAGNIFY REFLECTED IMAGE OF BAR CODE WITH OPTICAL ELEMENT
3608
3612
INCREASE CONTRAST OF REFLECTED IMAGE WITH OPTICAL ELEMENT
3614
RECEIVE REFLECTED IMAGE AT PHOTODETECTOR
3616
GENERATE OUTPUT ELECTRICAL SIGNALS INDICATIVE OF RECEIVED ENERGY
3618
DECODE OUTPUT SIGNALS TO ACCESS INFORMATION IN BAR CODE
3620
END

FIG. 36

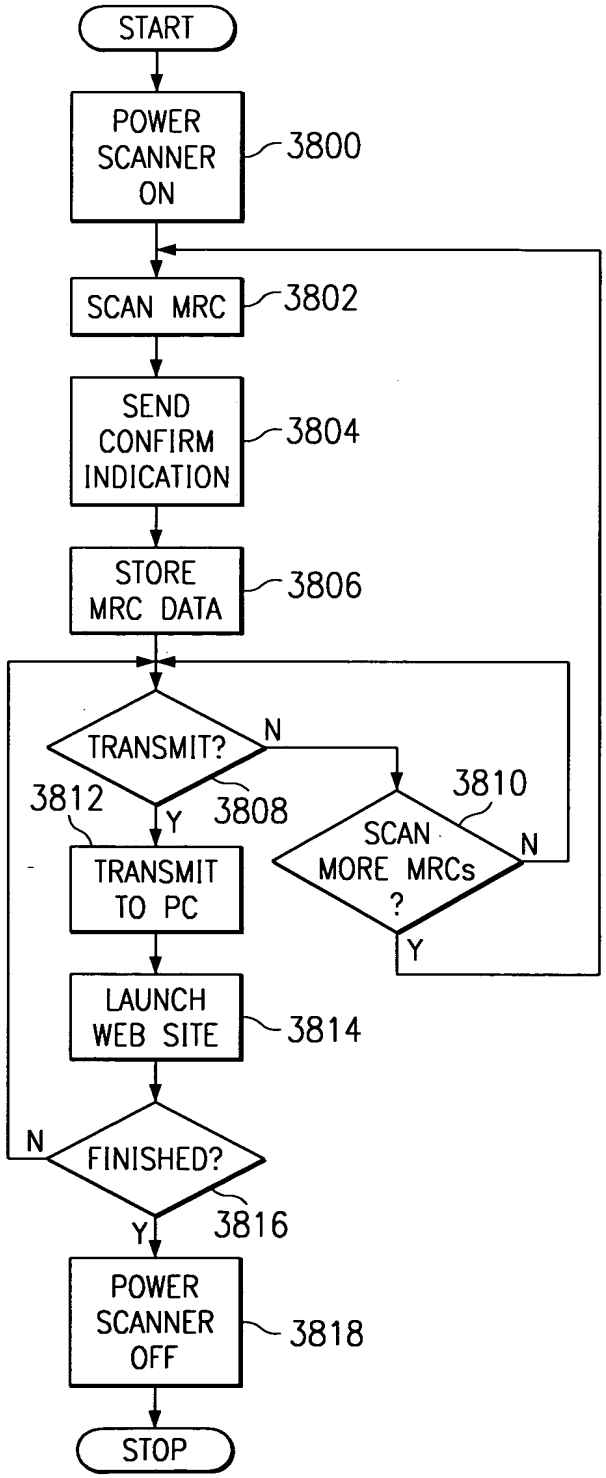

START
POWER SCANNER ON
3800
SCAN MRC
3802
SEND CONFIRM INDICATION
3804
STORE MRC DATA
3806
TRANSMIT?
N
Y
3808
3812
TRANSMIT TO PC
3810
SCAN MORE MRCs ?
N
Y
LAUNCH WEB SITE
3814
FINISHED?
N
Y
3816
POWER SCANNER OFF
3818
STOP

FIG. 38

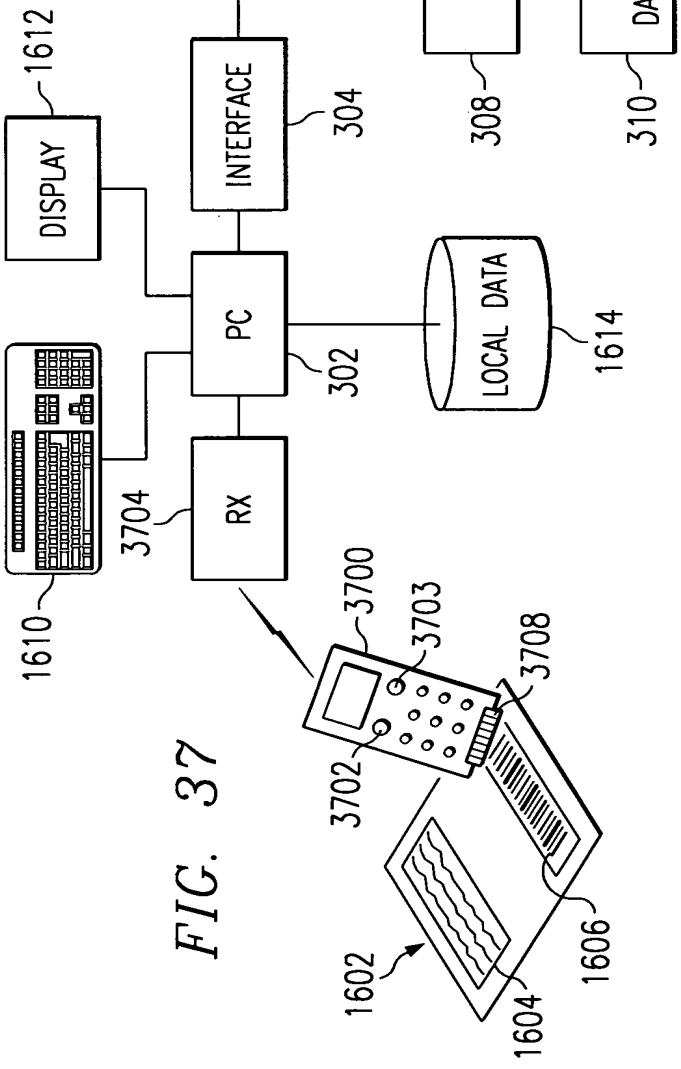


FIG. 37

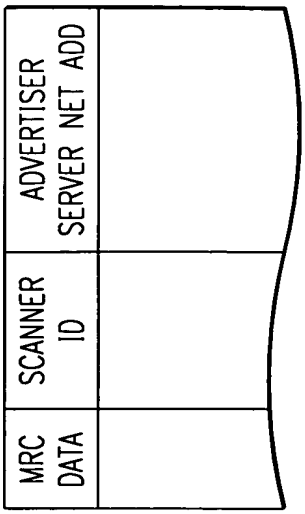


FIG. 41

FIG. 40

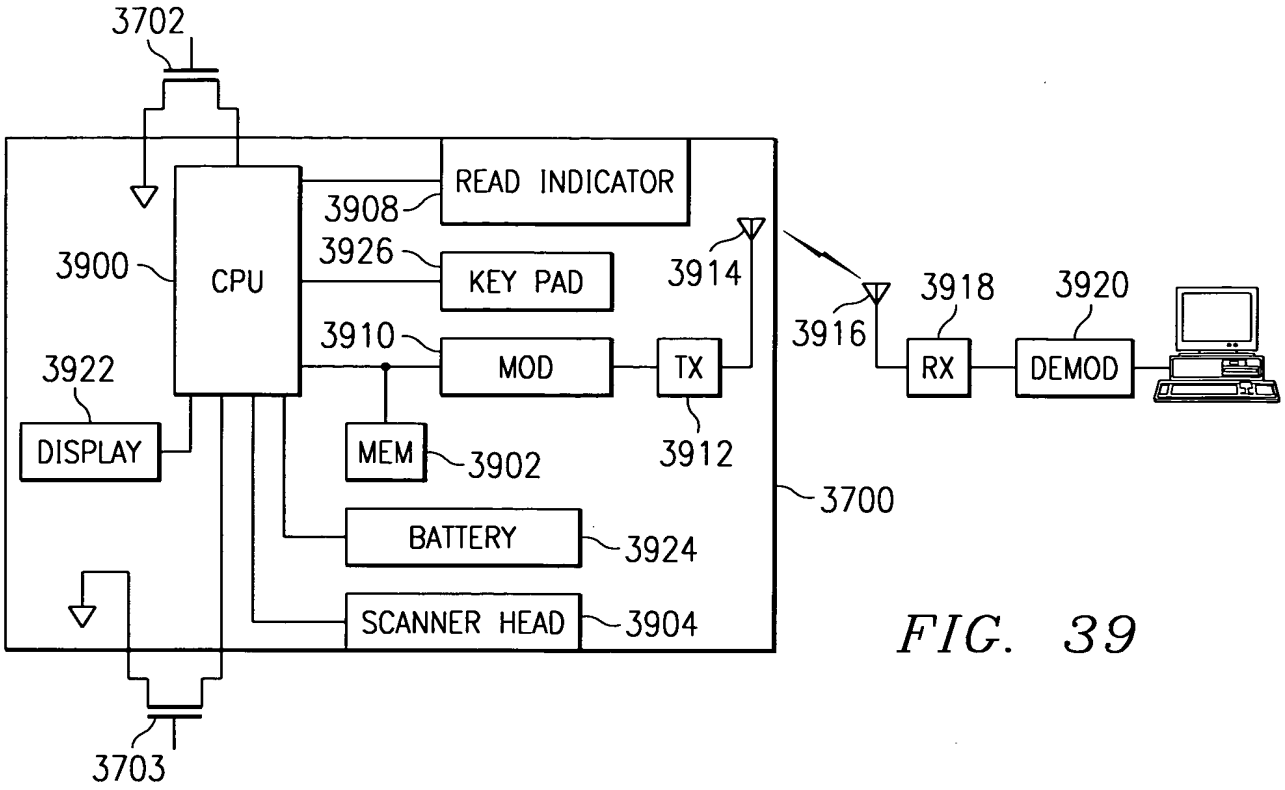


FIG. 39

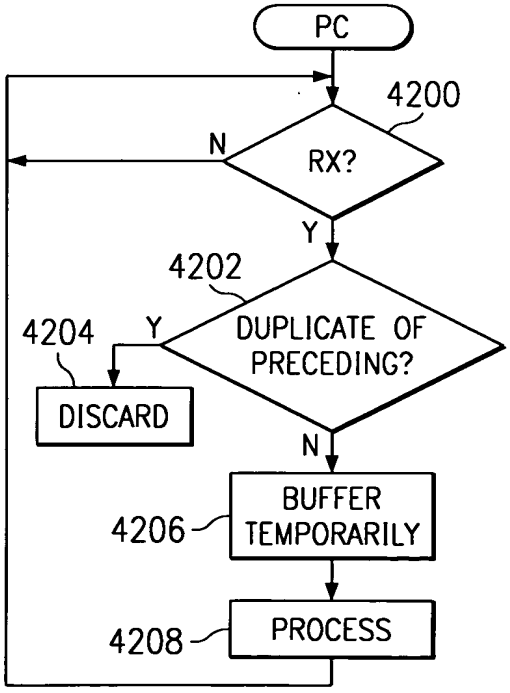


FIG. 42

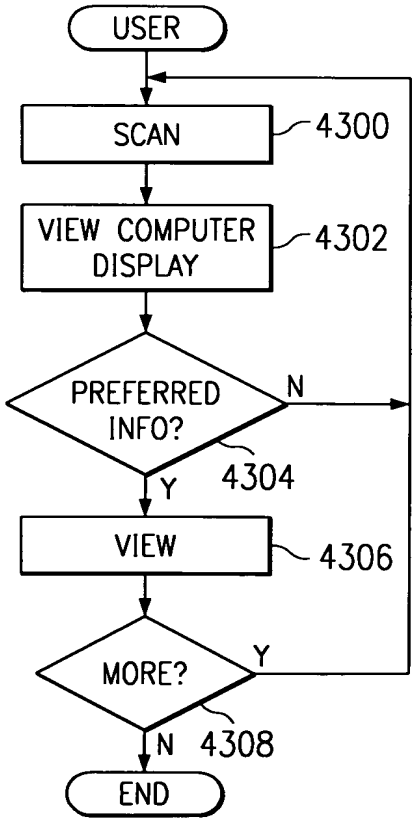


FIG. 43